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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,233	04/14/2004	Frank Jordens	2001P16038WOUS	6342
46726	7590	03/29/2005	EXAMINER	
JOHN T. WINBURN 100 BOSCH BOULEVARD NEW BERN, NC 28562			COOKE, COLLEEN P	
			ART UNIT	PAPER NUMBER
			1754	
DATE MAILED: 03/29/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/824,233

Applicant(s)

JORDENS ET AL.

Examiner

Colleen P Cooke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☒ Claim(s) 14-24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/14/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### ***Specification***

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter. The current specification appears to be a direct translation and is replete with grammatical and idiomatic errors. Correction is required.

### ***Claim Objections***

Claims 14-24 objected to because of the following informalities: Each claim is a dependent claim which further limits the previous claim with a phrase “including....” Which results in a grammatically incorrect and awkwardly worded phrase (e.g. “including said porous particle are thermally and chemically stable”). It is recommended that “including” be replaced by “wherein” (e.g. wherein said porous particles are thermally and chemically stable) to clarify the claim language. Appropriate correction is required.

Claim 18 is additionally objected to because of the following informalities: Claim 18 as written depends from claim 1 which has been cancelled. It is presumed claim 18 is intended to depend from claim 13 and so it will be treated as such for the purposes of further examination. Appropriate correction is required.

The claims, particularly claims 16, 18, and 19, are objected to because they include numbers which are NOT reference characters which are enclosed within parentheses (i.e. “in the ranges of five (5) to one hundred (100) microns).

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in

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the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m). Applicant is advised to claim the numerical ranges using either numerals OR the written numbers, NOT both (either “in the range of 5 to 100 microns” OR “in the range of five to one hundred microns”).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15, 16, and 18-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 16 recites the broad recitation 5-100  $\mu\text{m}$ , and the

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claim also recites 10-80, 20-60, or 30-50  $\mu\text{m}$  which are all narrower statements of the range/limitation. Likewise, claim 19 recites the broad recitation 0.5-10  $\mu\text{m}$ , and the claim also recites 1-5  $\mu\text{m}$  which is the narrower statement of the range/limitation.

Regarding claims 15, 18, 19, 20, 21, 22, the phrase "such as", "particularly" or "in particular" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-18, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Chay (3888790).

Chay teaches a porous ceramic catalytic coating for use in self-cleaning ovens and pollution control devices (Column 1, lines 10-12) wherein the coating includes a silicate binder (Column 3, lines 37-44) and also includes porous particles of a refractory material which may be metal oxides of Si, Al, Ti, or Zr (Column 3, lines 4-12) and which porosity includes open-cell pores. Chay teaches the metal oxides (refractory) particles are a "fine powder" (Column 3, line 29) and further that the oxides particles be less than 74  $\mu\text{m}$  (Column 5, lines 24-23).

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Claims 13-15, 17-18, and 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Stiles (3993597).

Stiles teaches a catalytic composition for coating the surfaces of sooking devices (Column 1, lines 13-15) wherein the coating includes a silicate binder (Column 4, lines 52-58) and porous metal oxide particles which may be a refractory material such as oxides of Al, Ti, B, Si and specifically teaches TiO<sub>2</sub>, Zr<sub>2</sub>O<sub>3</sub> and SiO<sub>2</sub> (Column 5, lines 30-40 and 45-49) which have open porosity. Stiles additionally teaches that other oxides may be added for pigment (Columns 5-6, lines 64-4).

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chay (3888790) as described with respect to claims 13 and 18 above.

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Chay teaches that the binder can be formulated from commercially available frits (Column 5, lines 3-7) and that upon mixing with the other coating components such be ballmilled since the frit must be reduced to a fine powder of less than 74 $\mu$ m (Column 6, lines 50-55).

Claims 16 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stiles (3993597) as described with respect to claims 13 and 18 above.

Stiles teaches in several examples that the particle sizes for the various components are: less than 35  $\mu$ m (Column 9, line 28; Column 11, lines 11), less than 25  $\mu$ m (Column 11, line 18), and in the range of 2-15  $\mu$ m (Column 11, lines 47-48). If this does not anticipate the claimed ranges for each specific component, it would be obvious for the components to have these sizes because to provide a more even coating and the desired porosity.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colleen P Cooke whose telephone number is 571-272-1170. She can normally be reached Mon.-Thurs. 8am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, her supervisor, Stan Silverman can be reached at 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Colleen P. Cooke". The signature is written in a cursive, flowing style.

Colleen P Cooke  
Examiner  
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